

# Company Data (Environment and Safety)

# Mitsubishi Chemical Group Companies Promoting Responsible Care Activities

As of March 2020

#### Petrochemicals Business Domain

Japan Polychem

Japan Polypropylene

Japan Polyethylene

Mitsubishi Chemical Indonesia

#### Carbon Business Domain

Kansai Coke and Chemicals

#### MMA Business Domain

Mitsubishi Chemical Lucite Group

Huizhou MMA

Suzhou Sanyouli Chemicals

Thai MMA

Mitsubishi Chemical Polymer Nantong

Suzhou MRC Opto-Device

Ryoko

Diapolyacrylate

## Advanced Polymers Business Domain

Mitsubishi Chemical Performance Polymers Europe

Mitsubishi Chemical Performance Polymers

Mitsubishi Chemical Performance Polymers (China)

RHOMBIC

### High Performance Chemicals Business Domain

DIACHEM RESINS INDONESIA

Toei Kasei

Dianal America

Japan Coating Resin

ARKEMA Yoshitomi

Mitsubishi-Chemical Foods

MCC United

Onahama Distillation

# Information, Electronics & Display Business Domain

MC PET FILM INDONESIA

Mitsubishi Polyester Film Suzhou

Mitsubishi Chemical Converting Film Wuxi

Tai Young High Tech

Mitsubishi Chemical Infonics

Cleanpart

Shinryo

Mitsubishi Chemical Media

Taisei Kayaku

Kansai Kagaku Kogyo

## High Performance Films Business Domain

J-Film

Tai-Young Film

DiaPlus Film

Mitsubishi Polyester Film (U.S.A.)

Mitsubishi Polyester Film (Germany)

# Environment & Living Solutions Business Domain

Dalian Rayon Environmental Equipment

Wuxi Rayon Membrane Technology

Mitsubishi Chemical Aqua Solutions

Mitsubishi Chemical Cleansui

Resindion

Tai Young Chemical

Mitsubishi Chemical Agri Dream

Mitsubishi Chemical Infratec

Astro

DIATEX

# Advanced Moldings & Composites Business Domain

Mitsubishi Chemical Advanced Materials

Toyama Filter Tow

Tosen

Ryoko Sizing

Mitsubishi Chemical Carbon Fiber and Composites

(U.S.A.)

Challenge

MCC Composite Products

Aldila

Wethje Carbon Composites

Wethje Immobilien

ALPOLIC

Mitsubishi Chemical Composites America

Ryobi Techno

Shanghai Baoling Plastics

MCC Advanced Moldings

#### ■ New Energy Business Domain

MC Ionic Solutions UK

MC Ionic Solutions US

Qingdao Anode Kasei

### Corporate Domain

Mitsubishi Chemical Logistics

Mitsubishi Chemical Engineering Corporation

Ryouei

Ryoko Tekunika

Hokuryo Mold

Mitsubishi Chemical High-Technica



# Company Data (Environment and Safety)

# Safety Data

Data for years prior to and including fiscal 2016 are the sums of the figures for the previous Mitsubishi Chemical, Mitsubishi Plastics, Mitsubishi Rayon and their respective domestic group companies before the formation of the current Mitsubishi Chemical.

### Mitsubishi Chemical Group Process Safety Incidents in Japan

Classification	FY2015	FY2016	FY2017	FY2018	FY2019
Incidents	12	16	21	33	31
Serious incidents	0	0	0	0	0

#### Mitsubishi Chemical Group Occupational Accidents in Japan

Classification	FY2015	FY2016	FY2017	FY2018	FY2019
Non-lost-time accidents	45	50	61	63	64
Lost-time accidents	7	5	0	3	6
Serious accidents	20	11	12	8	11

#### Mitsubishi Chemical Group Lost-Time Accidents by Classification

Classification	FY2015	FY2016	FY2017	FY2018	FY2019	Total
Cuts	1	6	1			8
Being caught and entangled in equipment	10	9	14	5	3	41
Falls on level surfaces	10	9	8	1	4	32
Contact with hazardous substances	3	6	2		1	12
Contact with high/ low temperatures	3	2			1	6
Reaction to motion/ improper motion	1			2	3	6
Collisions	3		5			8
Falls from high places	3	4	8	2	1	18
Struck by flying/falling objects	3	1		1		5
Others	2	2	4		4	12

#### **Environmental Data**

Data for years prior to and including fiscal 2016 are the sums of the figures for the previous Mitsubishi Chemical, Mitsubishi Plastics, Mitsubishi Rayon and their respective domestic group companies before the formation of the current Mitsubishi Chemical.

#### Mitsubishi Chemical Group Emissions of Pollutants into the Atmosphere and Water Systems (t)

Pollutant	FY2015	FY2016	FY2017	FY2018	FY2019
NO <sub>x</sub>	8,000	8,200	7,300	6,700	6,600
SO <sub>x</sub>	3,100	2,900	2,900	2,700	2,600
Dust	200	180	170	160	150
VOCs <sup>1</sup>	4,800	4,300	4,900	4,400	3,900
BOD	100	100	250	160	160
COD	1,700	1,700	1,700	1,600	1,500
Total phosphorus	50	60	50	50	50
Total nitrogen	5,500	5,700	5,800	5,400	5,500

<sup>1</sup> Includes PRTR-regulated substances.

#### Mitsubishi Chemical Group Water Intake and Discharge Volumes (km3)

	Туре	FY2015	FY2016	FY2017	FY2018	FY2019
	Tap water	28,400	31,300	1,400	1,300	1,300
	Surface water	_	_	47,800	48,300	52,900
Intake	Groundwater	22,300	23,200	25,500	25,900	26,000
	Industrial water	102,000	97,800	82,900	77,000	74,100
	Seawater	457,800	463,100	461,300	493,500	486,500
	Oceans	493,900	495,100	488,800	552,000	555,000
Discharge	Streams and wetlands	51,200	48,300	52,400	52,000	49,500
	Sewage	3,500	3,600	3,300	3,800	4,000

### ISO 14001 Certified Mitsubishi Chemical Manufacturing Sites

Manufacturing Site	Certification body	Registration date
Ibaraki Plant	JCQA <sup>1</sup>	March 2001
Toyama Plant	LRQA <sup>2</sup>	July 2016
Aichi Plant	LRQA	July 2016
Mie Plant	JCQA	July 1999
Shiga Plant	JQA <sup>3</sup>	December 1999
Okayama Plant	JCQA	March 2000
Hiroshima Plant	LRQA	March 2016
Kagawa Plant	LRQA	December 2000
Fukuoka Plant	JQA	July 2000
Onahama Plant	JCQA	March 2003

Manufacturing Site	Certification body	Registration date	
Tsukuba Plant	JCQA	February 2000	
Tsurumi Plant	LRQA	October 2016	
Hiratsuka Plant	JQA	March 2000	
Ueda Plant	JCQA	October 2003	
Ogaki Plant	SGS⁴	July 2001	
Kumamoto Plant	SGS	July 2001	

As of March 31, 2020

<sup>1</sup> JCQA: Japan Chemical Quality Assurance Ltd.

LRQA: Lloyd's Register Quality Assurance Limited
JQA: Japan Quality Assurance Organization

<sup>4</sup> SGS: SGS Japan Inc.